

Appl. No. 10/027,638
Amdt. dated 7/21/06
Reply to Office Action of 3/21/06

PATENT
Docket: 010286

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Upon entry of this amendment, claims 1-32, as amended, will remain in the application, with claims 6-17 and 23-27 having been withdrawn from consideration.

Claim Rejections – 35 USC 103

Claims 1-5, 8-22, and 28-32 were rejected under 35 U.S.C. 103(a) as being allegedly anticipated by Haugli et al. (U.S. Patent No. 5,914,944, hereinafter “Haugli”) in view of Dent (U.S. Patent No. 6,823,170).

Applicant teaches a downconverter that includes two frequency oscillators to generate an upper frequency oscillator signal and a lower frequency oscillator signal. Both of these frequency oscillator signals differ from each other and from an incoming RF signal to avoid interference with the RF signal, but can be combined (sum or difference) to generate a local oscillator (LO) signal with a frequency appropriate for downconverting the incoming signal. An embodiment is shown in FIG. 3 and described in paragraphs [0029] to [0031] (pages 6-7).

The Action characterizes the I and Q signals 58 and 59 in Haugli as corresponding to the first and second frequency signals that are different from the incoming RF signal used to generate the LO signal and relies on Dent to show that these I and Q signals can have frequencies different from each other.

Firstly, Haugli does not describe using the I and Q signals 58, 59 to generate an LO signal. The LO signal is generated by a crystal oscillator 64 (FIG. 4). The passage cited in the Action on page 3 allegedly supporting this reading (col. 7/lines 5-37) makes no mention of LO signal generation. In fact, there is no description of generating an LO signal with anything but the crystal oscillator 64.

Furthermore, the Action’s reasoning is circular – use I and Q to generate LO and then use LO to generate I and Q. This isn’t what Haugli describes nor is it a practical method for generating an LO signal.

Neither Haugli nor Dent, either alone or in combination, teach or suggest generating a local oscillator signal having a frequency that is a function of two signals having frequencies

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different from each other and from an incoming RF signal. Accordingly, Applicant submits that independent claims 1, 18, and 28, and their dependencies are allowable.

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CONCLUSION

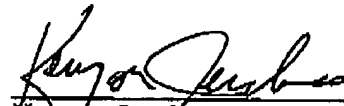
In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: 7/21/06

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